ABSTRACT OF THE DISCLOSURE

A Group-III nitride semiconductor device including a crystal substrate, an electrically conducting Group-III nitride semiconductor ($Al_XGa_YIn_{1-(X+Y)}N$: $0 \le X < 1$, $0 < Y \le 1$ and $0 < X + Y \le 1$) crystal layer vapor-phase grown on the crystal substrate, an ohmic electrode and an electrically conducting boron phosphide crystal layer provided between the ohmic electrode and the Group-III nitride semiconductor crystal layer, the ohmic electrode being disposed in contact with the boron phosphide crystal layer. Also disclosed is a method for producing the Group-III nitride semiconductor device, and a light-emitting diode including the Group-III nitride semiconductor device.